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News from the Savannah River National Laboratory

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DOE Awards \$2 Million to Clemson Hydrogen Research

CLEMSON, S.C. – The U.S. Department of Energy (DOE) will award \$2 million to Clemson University to fund hydrogen research and development that may help change the way we power the country.

The money will be used by chemical and biomolecular engineering chairman James Goodwin, in collaboration with the Savannah River National Lab, for research on understanding impurities in the production of hydrogen and oxygen streams and the performance of hydrogen fuel cells. It is part of a \$100 million fund for 25 hydrogen projects that support President Bush's Advanced Energy Initiative, which seeks to reduce United States' dependence on foreign sources of energy through new clean energy technologies.

Clemson is one of four universities across the country to receive the competitive award, along with such corporations as 3M and national laboratories, such as Los Alamos National Laboratory and Oak Ridge National Laboratory.

"We are pleased to be one of only four universities receiving a competitive award in support of President Bush's Advanced Energy Initiative," said Clemson University Vice President for Research and Economic Development Chris Przirembel. "The collaboration with Savannah River National Laboratory exemplifies the growing partnerships fostered by the South Carolina Hydrogen and Fuel Cell Alliance."

"Clearly, the United States is recognizing the need to develop alternative sources of energy, and South Carolina will be on the forefront of this research," said U.S. Sen. Jim DeMint of South Carolina, who has been an advocate of hydrogen fuel development. "I'm pleased that these funds will further Clemson's exploration into hydrogen research."



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U.S. Rep. Bob Inglis, member of the research subcommittee of the House Science Committee, also has been a vocal champion for the hydrogen economy and the role CU-ICAR might play in pursuing U.S. energy independence.

The Clemson research focuses on filtering out impurities in hydrogen and oxygen streams to boost the performance of fuel cells. Fuel cells are electrochemical energy

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conversion devices that produce electricity when hydrogen and oxygen are combined to produce water. They can be used to power vehicles with up to three times the efficiency of traditional internal combustion technologies. Fuel cells are more expensive, however, and have difficulty maintaining performance over the full useful life of the system.